

ABSTRACT OF THE DISCLOSURE

Mobile units within an area are located using a wireless local area network. Reference signal transmitters are provided at selected fixed locations within the area. Reference signals are transmitted using the reference signal transmitters using a first selected channel of the wireless local area network. A computer is provided having a database relating signal characteristics of signals transmitted by the reference signal transmitters to location within the area. At least one access point is coupled to the computer and provides wireless data communications between the computer and the mobile unit using one or more channels of the wireless data communications system that are different from the first data communications channel. A selected plurality of the reference signals are received at the mobile unit, signal characteristics of the received reference signals are determined and data representing the received reference signal characteristics is transmitted to the computer via the access point using the one or more data communications channels. The data representing reference signal characteristics is received at the computer and position of the mobile unit is determined using the database.